

ABSTRACT

An injector for injecting fuel into combustion chambers of internal combustion engines, in particular a piezoelectric-actuator-controlled common rail injector, has control means (17), predominantly a piezoelectric actuator (13), that are disposed in an injector body (10) and via at least one booster piston (14) actuate a control valve (20) received in a valve plate (18). Also provided are: a nozzle body (31), on whose (free) end toward the combustion chamber a nozzle outlet is embodied; a nozzle needle (33), which is located axially movably and actuatable in a longitudinal recess (32) of the nozzle body (31); a throttle disk (25), closing off the rear end (remote from the nozzle outlet) of the longitudinal recess (32) and located between the nozzle body (31) and the control valve (20), which throttle disk forms an opening stop for the nozzle needle (33), cooperates with the rear end face (remote from the nozzle outlet) of the nozzle needle (33) and thus limits the opening stroke of the nozzle needle (33); and a control chamber (45), embodied between the rear nozzle needle end face and the throttle disk (25), which chamber is in hydraulic communication with a pressure connection (29) serving to deliver fuel.

A substantial special feature is that a cylindrical retaining body (24) is disposed in the injector body (10) and receives the booster piston or pistons (14) and the valve plate (18) that contains the control valve (20).